

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

ROLL-RITE, LLC,

Plaintiff,

v.

Case Number 12-11150

Honorable Thomas L. Ludington

SHUR-CO, LLC,

Defendant.

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CLAIM CONSTRUCTION OPINION AND ORDER

Patent infringement analysis is a two-step process. At step one, claim construction, a court defines disputed patent terms to establish the scope of the patent as a matter of law. At step two, a factfinder evaluates the constructed claims and accused device and decides whether infringement is occurring. This opinion addresses step one.

I

A

Plaintiff developed an electric tarp system for use on open-top vehicles, such as dump trucks. The tarp is stored on a spool attached to a motor. When the motor is turned on, it drives a shaft that rotates the spool and winds or unwinds the tarp. When the motor is turned off, a brake engages and locks the tarp in place.

Plaintiff applied for a patent on its device in 1997. The Patent and Trademark Office initially rejected the application, explaining: “Compton discloses the invention substantially as claimed, except that Compton does not disclose a brake for the motor. Heider et al. discloses that it was known in the art to provide a brake for an electric motor.” Plaintiff then requested that the PTO reconsider its decision, explaining:

Heider et al. does not teach the claimed “brake” operatively connected to the electric motor “for automatically braking the motor when the electric motor is turned off.” The Examiner refers to Figures 16 and 17 of Heider et al. for teaching the brake. However, no brake is shown. Rather, planetary gear assemblies 118, 130 are shown without any braking structure whatsoever. The Examiner is reminded that prior art is anticipatory only if every element of the claimed invention is disclosed in a single item of prior art in the form literally defined in the claim. Accordingly, the rejection is improper because the claimed brake is not shown.

The PTO agreed. On November 3, 1998, it issued Plaintiff U.S. Patent No. 5,829,819 (filed Oct. 23, 1997). Entitled “Electric Tarp System for Truck Bed,” the ‘819 patent contains three independent claims (claims 1, 9, and 17) and 17 dependent claims.

Plaintiff alleges that Defendant is infringing on two of the independent claims — claims 1 and 17 — which provide:

1. A direct-drive actuator assembly for actuating a tarp spool for a truck bed tarp system, the direct-drive actuator assembly comprising:
 - a transmission housing having an output shaft for directly driving the tarp spool, and further having transmission gears therein engaging the output shaft;
 - an electric motor operatively connected to the transmissions gears for actuating the tarp spool; and
 - a brake operatively connected to the electric motor for automatically braking the motor when the electric motor is turned off.
17. A direct-drive actuator assembly for actuating a tarp spool for a truck bed tarp system, the direct-drive actuator assembly comprising:
 - a transmission housing having an output shaft for directly driving a tarp spool, and a plurality of transmission gears;
 - an electric motor operatively connected in a stacked relationship with the electric motor for automatically braking the motor when the electric motor is turned off;
 - a cover secured to the transmission housing for enclosing the electric motor and brake.

‘819 patent, col. 4, ll. 50–61, col. 6, ll. 18–30. (Plaintiff also alleges that Defendant is infringing on dependent claims 2, 3, 8, and 18.) Based on this alleged infringement, in March 2012 Plaintiff filed this suit against Defendant.

B

In June, the parties submitted a joint claim construction statement. In it, they agree on the meaning of six terms. (As noted, they disagree on eight others.) The six agreed definitions are that:

- (1) “[a] direct-drive actuator assembly” means “[a]n assembly that drives a tarp spool without chains or belts”;
- (2) an “output shaft for directly driving the tarp spool” means “[t]he transmission housing output shaft is connected to and rotates the tarp spool”;
- (3) “an electric motor operatively connected to the transmission gears for actuating the tarp spool” means “[a]n electric motor that transmits movement of the motor shaft through gears to the tarp spool to wind and unwind the tarp”;
- (4) “[a brake for] automatically braking the motor when the motor is turned off” means “[t]he brake is off when power is supplied to the motor, and the brake is on when power is not supplied to the motor”;
- (5) “a cover secured to the transmission housing by the plurality of bolts over the electric motor and brake” means “[t]he cover over the brake and motor is attached to the transmission housing by the same two or more bolts that attach the brake to the motor”; and
- (6) “[a brake] in a stacked relationship with the electric motor” means “[t]he brake and motor are adjacent to each other and the brake is aligned with the motor so that one end of the brake faces an end of the motor.”

The eight disputed terms are:

- (1) “A direct-drive actuator assembly for actuating a tarp spool for a truck bed tarp system”;
- (2) “tarp spool”;

- (3) “truck bed tarp system”;
- (4) “a brake”;
- (5) “a brake operatively connected to the electric motor”;
- (6) “the electric motor and the brake are disposed along a common axis”;
- (7) “transmission housing”;
- (8) “a cover . . . for enclosing the electric brake and motor.”

Each of these disputed terms is addressed in turn. First, however, general principles of patent law and claim construction are reviewed.

II

A

1

Section 112 of the Patent Act, 35 U.S.C. § 112, requires a patent to have two distinct components: a specification and claim. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (discussing 35 U.S.C. § 112). The first paragraph of § 112 provides that the specification

shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

§ 112(a). The second paragraph of § 112 provides that, following the specification, the patent

shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

§ 112(b). While both elements are statutorily required, it is the claims, not the specification, which “are the sole measure of the grant.” *Aro Mfg., Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 (1961); *see also Smith v. Snow*, 294 U.S. 1, 11 (1935); *Innova/Pure Water*,

Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004) (“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.”).

2

A claim has three parts: a preamble, transition, and body. *MagSil Corp. v. Hitachi Global Storage Techs., Inc.*, 687 F.3d 1377, 1383 (Fed. Cir. 2012) (citing *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1371 (Fed. Cir. 2005)).

The preamble discloses the sort of invention being claimed. *See generally* John L. Cooper, *Claim Construction — The Markman Hearing*, in *Anatomy of a Patent Case* 71 (Federal Judicial Center 2009). In claims 1 and 17 of the ‘819 patent, the preamble discloses “[a] direct-drive actuator assembly for actuating a tarp spool for a truck bed tarp system.” ‘819 patent, col. 4, ll. 50–51, col. 6, ll. 18–19.

The transition is the word or phrase that connects the preamble to the body of the claim. *See Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1348 (Fed. Cir. 2001). In claims 1 and 17 of the ‘819 patent, the transition is “comprising.” ‘819 patent, col. 4, ll. 52, col. 6, ll. 20.

And the body “sets forth a series of phrases delineating the structural limitations, elements, or steps in the invention. Thus, the claim construction typically focuses on the limitations in the body of the claim.” Cooper, *supra*, at 72.

B

The Supreme Court instructs that “the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.” *Markman*, 517 U.S. at 372. The twin purposes of the exercise are “to define the proper scope of the invention and to give

meaning to claim language.” Peter Menell et al., *Patent Case Management Judicial Guide* § 5.1.4.3 (Federal Judicial Center 2009). By establishing these definitions, a court offers a foundation for summary judgment motions or jury instructions or both. *See, e.g., IPPV Enters., LLC v. Echostar Commc’ns Corp.*, 106 F. Supp. 2d 595, 601 (D. Del. 2000).

1

Because the construction of a patent is exclusively within the province of a court, the court can adopt a definition put forward by one of the parties or devise its own construction. Menell, *supra*, § 5.1.4.4.

The standard is objective, with a twist: “A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention.” *Innova/Pure Water*, 381 F.3d at 1116 (collecting cases).

“In some cases,” the Federal Circuit observes, “the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc) (citing *Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001)).

Indeed, in some cases the ordinary meaning of contested language will be so apparent as to not require construction. For example, if a term “is non-technical, is in plain English and derives no special meaning from the patent and its prosecution history, then the court has no need to function as a thesaurus.” Menell, *supra*, § 5.1.4.3; *see also U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain

what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”).

If, however, the term at issue has a disputed technical meaning or scope — one which a jury should not be expected to readily appreciate — the court must define the term. Menell, *supra*, § 5.1.4.3.

2

In defining such a term, “the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean. Those sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence.” *Phillips*, 415 F.3d at 1314 (citations and quotation marks omitted) (quoting *Innova*, 381 F.3d at 1116). And, moreover, the court should do so in that order. *Phillips*, 415 F.3d at 1314.

a

From the outset, “a claim construction analysis must begin and remain centered on the claim language itself, for that is the language the patentee has chosen to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.” *Innova/Pure Water*, 381 F.3d at 1116 (quotation marks and brackets omitted) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001)).

b

“The claims, of course, do not stand alone. Rather, they are part of a fully integrated written instrument, consisting principally of a specification that concludes with the claims. For that reason, claims must be read in view of the specification.” *Phillips*, 415 F.3d at 1315

(quotation marks and citations omitted) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370 (1996)).

And the Patent Act itself, as noted, requires the specification describe the claimed invention in “clear, concise, and exact terms.” 35 U.S.C. § 112(a). Thus, as the Supreme Court explained more than a century ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878).

c

Next, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980). The Federal Circuit explains that “like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent. Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Phillips*, 415 F.3d at 1317.

d

Finally, a court may consider “extrinsic evidence, which consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Id.* (quotation marks omitted) (quoting *Markman*, 52 F.3d at 980). This evidence is less reliable than intrinsic evidence, however, and “cannot be used to vary the meaning of the claims as understood based on a reading of the intrinsic record.” *Phillips*, 415 F.3d at 1319.

Within the types of extrinsic evidence, the Federal Circuit has “especially noted the help that technical dictionaries may provide to a court to better understand the underlying technology and the way in which one of skill in the art might use the claim terms.” *Id.* at 1318 (quotation marks omitted) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 n.4 (Fed. Cir. 1996)).

In contrast, “extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Phillips*, 415 F.3d at 1318 (citing *Senmed, Inc. v. Richard–Allan Med. Indus., Inc.*, 888 F.2d 815, 819 n.8 (Fed. Cir. 1989)).

With these general principles in mind, the particular terms at issue here are addressed.

C

1

The first disputed term is the final phrase of the preamble to claims 1 and 17: “A direct-drive actuator assembly for actuating a tarp spool *for a truck bed tarp system*.” ‘819 patent, col. 4, ll. 50–51, col. 6, ll. 18–19 (emphasis supplied).

Defendant asserts that the phrase “for a truck bed tarp system” is a limitation on the scope of the patent. Plaintiff asserts that it is not.

a

Whether a preamble phrase limits the scope of the patent is governed by a frustratingly, “famously vague standard.” Menell, *supra*, § 5.2.3.2.5; *see also Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (“No litmus test defines when a preamble limits claim scope.”).

Under this standard, a preamble phrase is limiting when it is “necessary to give life, meaning, and vitality to the claim.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (quotation marks omitted) (collecting cases). For example, if a “preamble is grammatically essential to the claim, the general rule is that it is limiting.” Menell, *supra*, § 5.2.3.2.5 (collecting cases). Likewise, “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention.” *Catalina Mktg.*, 289 F.3d at 808.

In contrast, when “the body of the claim fully and intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention’s limitations, but rather merely states, for example, the purpose or intended use of the invention, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.” *Id.* (collecting cases). For instance, “preamble language merely extolling benefits or features of the claimed invention does not limit the claim scope without clear reliance on those benefits or features as patentably significant.” *Id.* at 809 (citing *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1375 (Fed. Cir. 2001)). Likewise, “a preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Catalina Mktg.*, 289 F.3d at 809 (citing *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000)).

Here, the phrase “for a truck bed tarp system” illustrates the intended use. The direct-drive actuator assembly is to be used “for a truck bed tarp system.” That’s its intended purpose.

But the phrase does not affect the structure of the device. Claim 1, for example, has six distinct parts: an electric motor, transmission gears, output shaft, transmission housing, tarp spool, and brake. *See* ‘819 patent, col. 4, ll. 50–61. In full, the claim provides:

A direct-drive actuator assembly for actuating a tarp spool for a truck bed tarp system, the direct-drive actuator assembly comprising:

a transmission housing having an output shaft for directly driving the tarp spool, and further having transmission gears therein engaging the output shaft;

an electric motor operatively connected to the transmissions gears for actuating the tarp spool; and

a brake operatively connected to the electric motor for automatically braking the motor when the electric motor is turned off.

Id. Deleting the preamble phrase “for a truck bed tarp system” does not alter the structure of this device or the manner that it operates.

Rather, the body of the claim describes a structurally complete device. The electric motor rotates the transmission gears. The gears drive the output shaft. The shaft rotates the tarp spool. When the motor is turned off, a brake automatically engages and stops the motor. Deleting the preamble phrase “for a truck bed tarp system” does not alter the structure of this claim.

Likewise, claim 17 has seven distinct parts: an electric motor, transmission gears, output shaft, transmission housing, tarp spool, brake, and cover. *See* ‘819 patent, col. 6, ll. 18–30 (quoted above). They are structured in much the same way as claim 1.¹

Once again, deleting the preamble phrase “for a truck bed tarp system” does not alter the structure of this claim. Rather, again the motor rotates the transmission gears. The gears drive the output shaft. The shaft rotates the tarp spool. When the motor is turned off, a brake

¹ There are, of course, some differences. For one, the brake is aligned in a “stacked relationship” with the motor. For another, the cover encloses the motor and brake.

automatically engages and stops the motor. The transmission gears and output shaft are located within the transmission housing. And the cover is secured to the transmission housing, enclosing the motor and brake. Omitting the phrase “for a truck bed tarp system” does not affect this structure or the steps in which the claimed invention operates.

Plaintiff, moreover, did not rely on the preamble during prosecution — the subject did not come up in the back and forth that Plaintiff had with the PTO. The phrase “for a truck bed tarp system” was not patentably significant. Claims 1 and 17 are not limited by that preamble phrase.

Reinforcing this conclusion are claims 6 and 9 of the ‘819 patent. *See* ‘819 patent, col. 5, ll. 10–12, col. 5, ll. 20–33. Claim 6 is a dependent claim, providing: “The direct-drive actuator assembly of claim 1, further comprising first and second attachment bolts for securing the transmission housing to the tarp housing.” *Id.* col. 5, ll. 10–12.

This adds a limitation to claim 1. Specifically, claim 6 adds an additional component, “attachment bolts,” that secure the transmission housing to the tarp’s housing.

Under the doctrine of claim differentiation, the presumption is that the independent claim (claim 1) is not restricted by the added limitation in the dependent claim (claim 6). *See, e.g., Phillips*, 415 F.3d at 1315 (“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.”); *see also Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (“That presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim”).

Thus, claim 1 is not restricted to the transmission housing being bolted to the tarp housing — much less bolted to the tarp housing which, in turn, is affixed to a truck.

Claim 9, though an independent claim, is likewise instructive. *See, e.g., Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368–69 (Fed. Cir. 2005) (“Although the doctrine [of claim differentiation] is at its strongest where the limitation sought to be ‘read into’ an independent claim already appears in a dependent claim, there is still a presumption that two independent claims have different scope when different words or phrases are used in those claims.” (quotation marks and citation omitted) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004))). Claim 9 provides:

An electric tarp system for covering a truck bed, the system comprising:

a tarp housing adapted for attachment to the truck;

a tarp spool positioned within the tarp housing, and having an output shaft for directly driving the tarp spool, and further having transmission gears therein engaging the output shaft;

an electric motor operatively connected to the transmission gears for actuating the tarp spool; and

a brake operatively connected to the electric motor for automatically braking the motor when the electric motor is turned off.

‘819 patent, col. 5, ll. 20–33. The body of claim 9 thus expressly limits the claim to “a tarp housing adapted for attachment to [a] truck.”

The body of claims 1 and 17, as noted, contain no such limitation. They are not limited by the preamble phrase “for a truck bed tarp system.”

b

Against this conclusion, Defendant makes three principal arguments. While each raise fair points, they do not alter the above conclusion.

i

First, Defendant argues that “the clear import of the patent itself” is that it is designed for use in truck bed tarp systems. The title of the patent is “Electric Tarp System for Truck Bed.” The first drawing (figure 1) depicts a truck with a tarp system. *See* ‘819 patent fig. 1. And the specification begins by explaining “The present invention relates to an electric tarp system for a truck bed.” *Id.* col. 1, ll. 4–5.

Defendant is correct that references to “a truck bed tarp system” abound in the specification. Moreover, as one leading treatise notes: “A review of the Federal Circuit’s cases over the past ten years, in cases that litigated the issue of whether to construe the preamble, reveals that the dominant approach in the close cases is to construe the preamble as a limitation.” Menell, *supra*, § 5.2.3.2.5. This, however, is not such a case.

As a threshold matter, the primary purpose of the device is indisputably for use with a truck bed tarp system. The title, specification, and at least one of the figures make that plain.

But the phrase appears nowhere in the body of claims 1 or 17. *See* ‘819 patent, col. 4, ll. 50–61, col. 6, ll. 18–30 (quoted above). The Supreme Court has long cautioned that “the claims of the patent, not its specifications, measure the invention.” *Snow*, 294 U.S. at 11; *see also Aro Mfg.*, 365 U.S. at 339 (“[T]he claims made in the patent are the sole measure of the grant.”). The Federal Circuit likewise cautions that “although the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.” *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed.Cir.1994). The court elaborates:

We have had many occasions to cite one or both of the twin axioms regarding the role of the specification in claim construction: On the one hand, claims must be

read in view of the specification, of which they are a part. On the other hand, it is improper to read a limitation from the specification into the claims. Although parties frequently cite one or the other of these axioms to us as if the axiom were sufficient, standing alone, to resolve the claim construction issues we are called upon to decide, the axioms themselves seldom provide an answer, but instead merely frame the question to be resolved. We have recognized that there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification. As we have explained, an inherent tension exists as to whether a statement is a clear lexicographic definition or a description of a preferred embodiment. The problem is to interpret claims in view of the specification without unnecessarily importing limitations from the specification into the claims.

Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 904–05 (Fed. Cir. 2004) (citations and quotation marks omitted). Likewise, the court observes that “if we do not read limitations into the claims from the specification that are not found in the claims themselves, then we certainly will not read limitations into the claims from the patent title.” *Pitney Bowes*, 182 F.3d at 1312 (citing *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1132 (Fed. Cir. 1988)).

Here, as detailed above, the body of claims 1 and 17 describe a structurally complete device. While the preferred embodiment is indisputably for use in a truck bed tarp system, that limitation does not define claims 1 and 17. Unnecessary to the substance of the claims, that limitation will not be imported from the specification into the claims themselves.

ii

Next, Defendant argues the preamble to claims 1 and 17 is a limitation because it is grammatically essential to those claims. Defendant writes that the bodies “incorporate the preamble language into the body of the claim because of the use of the term ‘tarp spool.’ . . . In both instances where ‘tarp spool’ appears in the body of the claim it uses the term ‘the’ indicating that the antecedent basis appears earlier.” Thus, Defendant concludes, the entire

phrase “for a tarp spool for a truck bed tarp system” is grammatically incorporated into the body of the claim.

Defendant is correct that the initial use of the indefinite article “a” in the preamble’s phrase “a tarp spool” followed by the use of the definite article “the” in the body’s phrase “the tarp spool” suggests that the latter refers back to the former. *Cf. Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008). But Defendant’s conclusion does not follow. The entire phrase “a tarp spool for a truck bed tarp system” is not grammatically essential to the claim.

To elaborate, the phrase “a tarp spool” refers to a physical object. That object is essential to the claimed invention. And it is expressly incorporated into the body of claims 1 and 17.

The phrase “for a truck bed tarp system,” in contrast, refers to a purpose. That purpose is not essential to the claims grammatically, patentably, or otherwise. It is not expressly incorporated into the bodies of the claims. And grammatically the phrase does not circumscribe the substance of the “tarp spool.” That object remains that object. The phrase instead merely describes one use for the tarp spool (the preferred use). As noted above (several times), deleting the phrase does not affect the device’s structure.

Nor did the phrase come up during the prosecution history. Before the PTO, Plaintiff disputed whether the brake limitation was disclosed in the prior art — not whether the claimed invention was limited to use in truck bed tarp system.

The phrase is not a limitation on the scope of the patent.

iii

Finally, Defendant asserts that the prior art referenced in the patent demonstrates that the claims are limited to tarp spools for “trucks.”

The '819 patent cites 19 patents. And some, Defendant is correct, are expressly limited to trucks. For example, the Compton patent (which was raised by the PTO during the prosecution history) contains a claim expressly limited to a device "mounted on the truck body." U.S. Patent No. 4,516,802, col. 10, ll. 25–26 (filed Dec. 2, 1982). Similarly, U.S. patent 3,868,142, entitled "cover for trucks," is expressly limited to "a truck having a frame with an extensible flexible cover for the truck." And both of these patents are cited in the '819 patent.

But other patents cited in the '819 patent have no such limitations. Take, for example, the Heider patent (also raised by the PTO during the prosecution history). U.S. Patent No. 4,529,098 (filed Sept. 28, 1984). Entitled "top closure for a rectangular box," the contemplated purposes of that invention include "covering the tops of truck trailers, for covering the upper ends of bins, or for covering such things as solar collectors." '098 Patent, col. 1., ll. 13–15. And nothing in the body of the patent's seven claims limits the invention to vehicles, much less trucks. *Id.* col. 8, l. 6–col. 10., l. 18. Likewise, U.S. patent number 5,697,663, "heap climbing container system," is expressly limited to a cover for "an open topped container." But nothing in the body of the claims of that invention limits the invention to vehicles, much less trucks.

In sum, the prior art does not demonstrate that the claims of the '819 patent are limited to tarp spools for "trucks." The preamble phrase "for a truck bed tarp system" is not a limitation on the scope of the patent.

2

The second disputed term is the phrase "tarp spool" in claims 1 and 17. '819 patent, col. 4, l. 55, col. 6, ll. 22. The parties agree that the term is a claim limitation. They disagree about its meaning.

Plaintiff's proposed construction is: "A spindle or cylinder which rotates about its axis to wind and unwind the tarp material." Initially, Defendant's proposed construction was: "a mounted, stationary pipe or tube that can rotate around its axis to wind and unwind tarp material." In its claim construction brief, however, Defendant writes that it agrees to "the use of the words 'spindle or cylinder.'"

Accordingly, the remaining dispute on this term is whether to limit the claims by defining "tarp spool" as both "mounted" and "stationary."

a

In constructing a claim, as noted, a court "seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention." *Innova/Pure Water*, 381 F.3d at 1116 (collecting cases).

In defining the term's meaning, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (quotation marks omitted) (quoting *Vitronics Corp.*, 90 F.3d at 1582). In defining a term's scope, in contrast, the specification is not necessarily the best guide to the limits of the term. As the Federal Circuit puts the point: "The problem is to interpret claims in view of the specification without unnecessarily importing limitations from the specification into the claims." *Liebel-Flarsheim Co.*, 358 F.3d at 905.

Here, claims 1 and 17 do not elaborate on what the "tarp spool" means. Nor do they indicate that it is either "mounted" or "stationary."

The specification, however, does elaborate on the tarp spool. Specifically, it describes the tarp spool as part of "a winding assembly" that "includes a direct-drive actuator assembly for rotatably driving the flexible cover or tarp, which is supported on the rotatable spool." '819

patent, col. 3, ll. 11–13. Again, nothing in this written description suggests that the tarp spool is either “mounted” or “stationary.”

Figure 1, of course, does depict a winding assembly affixed to the top of a truck. But as noted, “although the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.” *Electro Med. Sys.*, 34 F.3d at 1054.

And nothing in the claim language limits a tarp spool to this type of embodiment. Likewise, nothing in the prosecution history suggests that a tarp spool must be either “mounted” or “stationary.”

Accordingly, the phrase “tarp spool” will be defined as “a spindle or cylinder that rotates around its axis to wind and unwind tarp material.” Defendant’s proposed limitation that the tarp spool is “mounted” and “stationary” will be rejected.

b

Defendant advances three arguments in support of its preferred interpretation. Again, none alter the above conclusion.

i

First, Defendant offers an opinion of its expert, Jerry Ray Dimmer, that “tarp spool” is a technical term “used to refer to mounted, stationary rotating cylinders or tubes used on front-to-rear tarp systems.”

Expert testimony in claim construction, as noted, is generally considered the least reliable type of evidence. *Phillips*, 415 F.3d at 1318 (discussed above). Moreover, the Federal Circuit cautions that “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Id.* Likewise, “a court should discount any expert testimony that is

clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.” *Id.* (quotation marks omitted) (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998)).

Here, Mr. Dimmer does not support his assertion with citation to technical dictionaries, industry-specific treatises, or other sources independent of his opinion. Moreover, his assertions do not find support in the claims themselves, the written description, or the prosecution history. And, although figure 1 does depict a winding assembly affixed on top of a truck, the claim language itself is broader than this embodiment.

Defendant’s argument that the term “tarp spool” should be limited based on Mr. Dimmer’s opinion lacks merit.

ii

Next, Defendant argues that “tarp spool” should be limited to one that is “mounted” and “stationary” because of the ‘819 patent’s drawings and written specifications. Defendant writes that “the patent’s written specification calls for the ‘tarp spool’ to be mounted and stationary. It states, ‘The system includes a tarp housing adapted for attachment to the truck, and a tarp spool positioned within the tarp housing. A direct-drive actuator assembly, as described above, is directly attached to the tarp housing for directly driving the tarp spool.’ As the tarp spool is attached to the tarp housing, and the tarp housing is attached to the truck, the tarp spool is necessarily mounted and stationary.”

Defendant’s quotation to the ‘819 patent’s specification is accurate — but incomplete. The sentence that immediately precedes Defendant’s selected text makes plain that the paragraph is describing claim 9, not claim 1 or 17. *See* ‘819 patent, col. 2, ll. 9–14.

To elaborate, the preamble to claim 9 is “An electric tarp system for covering a truck bed.” ‘819 patent, col. 4, l. 20. The first sentence of the specification paragraph that Defendant relies on is “Another aspect of the invention provides an electric tarp system for covering a truck bed.” *Id.* col. 2, ll. 9–10.

The next two sentences of claim 9 are “a tarp housing adapted for attachment to the truck” and “a tarp spool positioned within the tarp housing.” *Id.* col. 4, ll. 22–23. The next sentence of the specification paragraph that Defendant relies on is “The system includes a tarp housing adapted for attachment to the truck, and a tarp spool positioned within the tarp housing.” *Id.* col. 2, ll. 10–12.

And so it goes point for point, making plain that this paragraph of the specification is describing claim 9, not claims 1 and 17. Neither of those claims, as noted, reference an “attachment to [a] truck.” Defendant’s reliance on this portion of the specification is misplaced.

iii

Finally, Defendant argues that the prior art reveals that “tarp spool” is a term of art in the field meaning a structure found on a front-to-back rather than side-to-side tarp system. Defendant further asserts that when patent drafters wish to refer to a side-to-side system, they use other terms of art in the field, like “reel.” In support, Defendant cites another of Plaintiff’s patents, entitled “trailer cover system,” U.S. Patent No. 7,726,720 (filed July 23, 2007).

Defendant’s reliance on the ‘720 patent is misplaced. As a threshold matter, Defendant is correct that the ‘720 patent depicts a side-to-side tarp system. Defendant is not correct, however, that the ‘720 patent uses “reel” as a term of art to mean something distinct from “tarp spool.” On the contrary, the terms are used interchangeably.

To begin, the specification first explains: “A rotatable reel **32** extends from the motor **30**, and is operatively connected to one end of the cover **12** so as to function as a take-up spool.” ‘720 patent, col. 3, ll. 6–7. Thus, the term “reel” refers to figure number 32.

One paragraph later in the specification, it continues: “A locking channel portion **56** of the exterior surface **44** is concave, in order to accommodate the stowed tarp spool **32**.” *Id.* col. 3, ll. 29–31. Thus, the term “tarp spool” also refers to figure number 32. The terms “reel” and “tarp spool” are used to refer to the same structure. Reel is not a term of art in field that means something distinct from tarp spool. Rather, the terms may be used interchangeably.

To repeat, the phrase “tarp spool” will be defined as “a spindle or cylinder that rotates around its axis to wind and unwind tarp material.” Defendant’s proposed limitation that the tarp spool is “mounted” and “stationary” will be rejected.

3

The third term at issue is ancillary to the first disputed term. That dispute, as noted, is whether the preamble phrase “for a truck bed tarp system” is a limitation. *See* ‘819 patent, col. 4, l. 51, col. 6, l. 19. Plaintiff maintains that it is not. Defendant asserts that it is a limitation that means “[a] system for holding a covering and extending it from the front to the rear of a truck having a bed and cab supported on a single, integrated frame.”

For reasons discussed above, the Court concludes that the phrase is not a limitation and therefore declines to define the term.

4

The fourth disputed term is the phrase “a brake” in claims 1 and 17. *See* ‘819 patent, col. 4, l. 59, col. 6, ll. 26, 30.

Plaintiff proposes that “a brake” should be defined to mean “[a]n assembly which prevents movement of an object.” Defendant, arguing in the alternative, puts forward two definitions. Defendant writes: “This is a means-plus-function term construed according to 35 U.S.C. 112, para. 6, to cover the corresponding structure described in the specification for accomplishing the function recited in the claim (i.e., ‘automatic braking when the motor is turned off’). Alternatively, ‘a brake’ is a device for applying contact friction to stop movement having structural elements described in the ‘819 patent.”

a

Notwithstanding the parties’ arguments, the Court will decline to define the term “brake” in claims 1 and 17. As noted, claim construction “is not an obligatory exercise in redundancy.” *U.S. Surgical Corp.*, 103 F.3d at 1568. Thus, when a term “is non-technical, is in plain English and derives no special meaning from the patent and its prosecution history, then the court has no need to function as a thesaurus.” Menell, *supra*, § 5.1.4.3.

In pertinent part, claim 1 provides “a brake operatively connected to the electric motor for automatically braking the motor when the electric motor is turned off.” ‘819 patent, col. 4, ll. 59–61. Claim 17 provides: “a brake operatively connected in a stacked relationship with the electric motor for automatically braking the motor when the electric motor is turned off.” ‘819 patent, col. 6, ll. 26–28.

In claims 1 and 17 the term “a brake” refers to just that — a brake. Nothing more, nothing less. Plaintiff is thus correct that “a brake” in this context is a thing “which prevents movement of an object.” But the jury does not need to be given this definition to understand what “a brake” means in claims 1 and 17. It is used in a non-technical, plain English way.

Nor should the jury be told that “a brake” is “a device for applying contact friction to stop movement.” The text of claims 1 and 17 does not support such a limitation. Rather, in those claims it is simply “a brake.” No particular type, just “a brake.”

Reinforcing this conclusion are dependent claims 4 and 19. *See* ‘819 patent, col. 5, ll. 4–5, col. 6, ll. 34–36. There, the brake is described as a particular sort of brake: “a spring-applied, power-released type brake.” *Id.* As noted, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1315. Thus, in claims 4 and 19, the brake is a particular sort of brake (the “spring-applied, power-released type of brake”). In claims 1 and 17, it’s just “a brake.”

Further reinforcing this conclusion is the prosecution history of the ‘819 patent. When Plaintiff applied for the patent, the PTO initially rejected the application, explaining: “Compton discloses the invention substantially as claimed, except that Compton does not disclose a brake for the motor. Heider et al. discloses that it was known in the art to provide a brake for an electric motor.” Plaintiff requested reconsideration, writing:

Heider et al. does not teach the claimed ‘brake’ operatively connected to the electric motor ‘for automatically braking the motor when the electric motor is turned off.’ The Examiner refers to Figures 16 and 17 of Heider et al. for teaching the brake. However, no brake is shown. Rather, planetary gear assemblies 118, 130 are shown without any braking structure whatsoever. The Examiner is reminded that prior art is anticipatory only if every element of the claimed invention is disclosed in a single item of prior art in the form literally defined in the claim. Accordingly, the rejection is improper because the claimed brake is not shown.

The PTO agreed and approved the claim. Nowhere in this correspondence was a particular type of brake discussed. Rather, it was simply a brake.

Sometimes a brake is just a brake. And the brake in claims 1 and 17 is one of those times. The Court will decline to define the term.

b

i

Plaintiff does not appear to have serious reservations about leaving the term to its ordinary meaning in the art.

ii

Defendant, in contrast, vigorously maintains that the term should be defined by the Court — and, moreover, defined as a “means-plus-function” claim pursuant to 35 U.S.C. § 112(f). That paragraph provides:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

When this paragraph is held applicable to a disputed term, “then the claim term is construed by identifying the ‘function’ associated with the claim language, and then the corresponding ‘structure’ in the specification with that function. The claim is construed to be limited to those corresponding structures and their equivalents.” Menell, *supra*, § 5.2.3.5; *see, e.g., Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1369 (Fed. Cir. 2005).

Thus, it isn’t hard to understand why Defendant wants the Court to construe the term “a brake” as a means-plus-function claim — that would limit its meaning to the types of brakes discussed in the specification and their equivalents.

But the Federal Circuit cautions: “Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function.”

DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1023 (Fed. Cir. 2006) (quoting *Phillips*, 415 F.3d at 1311).

A claim that does not expressly include the word “means” — as in this case — “will trigger the rebuttable presumption that 35 U.S.C. § 112 ¶ 6 does not apply.” *DePuy Spine*, 469 F.3d at 1023 (brackets omitted) (quoting *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002)). Moreover, the Federal Circuit cautions that “the presumption flowing from the absence of the term ‘means’ is a strong one that is not readily overcome.” *DePuy Spine*, 469 F.3d at 1023 (citing *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004)).

Nevertheless, the presumption “can be rebutted by showing that the claim element recites a function without reciting sufficient structure for performing that function.” *DePuy Spine*, 469 F.3d at 1023 (brackets omitted) (citing *Watts v. XL Sys. Inc.*, 232 F.3d 877, 880 (Fed.Cir.2000)).

In *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1256 (Fed. Cir. 1998), for example, the Federal Circuit concluded that the presumption was overcome because a “lever moving element” was not a known structure in the lock art. *Id.* at 1213–15.

In contrast, in *DePuy Spine* the Federal Circuit concluded that the presumption against means-plus-function treatment was not overcome for the term “compression member.” 469 F.3d at 1023. The court first noted: “The claim language demonstrates that the compression member must fit inside the cylindrical opening and be of sufficient size to exert a force on the screw head, which implies structure.” *Id.*

Here, the claim language also suggests structure. In claim 17, for example, the brake is an object “operatively connected in a stacked relationship with the electric motor” and located

beneath “a cover secured to the transmission housing for enclosing the electric motor and brake.” ‘819 patent, col. 6, ll. 26–30.

Moreover, the claim recites both a separate structure (“brake”) and function (“automatically braking the motor”). As the Federal Circuit itself notes: “Many devices take their names from the functions they perform. The examples are innumerable, such as . . . ‘brake,’ ‘clamp,’ ‘screwdriver,’ or ‘lock.’” *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996). This is such a case. Defendant’s proposed limitation will be rejected.

In claims 1 and 17, “a brake” is simply that. A brake. The Court will decline to define the term.

5

The fifth disputed term is related to the fourth. At issue is the phrase in claim 1: “a brake operatively connected to the electric motor.” ‘819 patent, col. 4, l. 59.²

Plaintiff proposes that the phrase means “[a]n assembly linked with the electric motor.” Defendant initially proposed that the phrase means “[t]he brake is connected to the electric motor and, when activated, applies frictional force to stop rotational movement of the motor shaft.” In its brief, however, Defendant writes that it “abandons its earlier proposal” and asks instead that the phrase be defined to mean “the brake is energized when the motor is energized, and the brake is de-energized when the motor is de-energized.”

a

At the core of the phrase “a brake operatively connected to the electric motor” are two words, “operatively connected.” These same two words were at issue in *Innova/Pure Water, Inc.*

² This precise phrase comes in claim 1, *id.*, although claim 17 contains a similar provision, which provides: “a brake operatively connected in a stacked relationship with the electric motor,” *id.* col. 6, ll. 26–27.

v. Safari Water Filtration Systems, Inc., 381 F.3d 1111 (Fed. Cir. 2004), which involved a “bottle filter cap” patent. The district court concluded that “the ordinary meaning” of a claim providing that a tube was “operatively connected” to a cap “requires that the two components be ‘affixed by some tenacious means of physical engagement that results in a unitary structure.’” *Id.* at 1117–18 (ellipsis and brackets omitted).

The Federal Circuit reversed. The court first noted that “operatively connected” is “a general descriptive term frequently used in patent drafting to reflect a functional relationship between claimed components.” *Id.* at 1118. “In the absence of modifiers,” the Federal Circuit then cautioned, “general descriptive terms are typically construed as having their full meaning.” *Id.* (citing *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 992 (Fed. Cir. 1999)). The district court erred, the Federal Circuit concluded, by importing examples of ways to connect the tube to the cap from the specification into the claim to require “physical engagement between the tube and the cap that results in a unitary structure.” *Innova/Pure Water*, 381 F.3d at 1118. Instead, the court interpreted the phrase to mean that the tube is “operatively connected” to the cap “when the tube and cap are arranged in a manner that affects filtering.” *Id.*

Here, as in *Innova/Pure Water*, the term “operatively connected” in claims 1 and 17 does not have any modifiers. Accordingly, as in *Innova/Pure Water* the term will be interpreted functionally and the limitations of the specification will not be read into the claim. Rather, the brake is “operatively connected” to the electric motor when it is “arranged in a manner” that is capable of braking the motor.

i

Plaintiff’s proposed definition — that “a brake operatively connected to the electric motor” means “[a]n assembly linked with the electric motor” — is insufficiently descriptive.

The proposed definition does not describe the claimed invention's function. The object is not just any type of assembly; it is a brake. And the brake is not simply linked to the motor; it is arranged in a manner that is capable of braking the motor.

ii

Defendant's amended proposal — that the phrase be defined to mean “the brake is energized when the motor is energized, and the brake is de-energized when the motor is de-energized” — offers both too little description and too much.³

The precise phrase at issue, as noted, comes from the body of claim one. In pertinent part, that claim provides: “*a brake operatively connected to the electric motor for automatically braking the motor when the electric motor is turned off.*” ‘819 patent, col. 4, ll. 59–61 (emphasis supplied). Defendant's proposal, that “the brake is energized when the motor is energized” (and vice versa) does not describe the brake's function (i.e., braking the motor). Moreover, it injects a preferred embodiment from the specification into the claim that the brake is “energized.” *See* ‘819 patent, col 2, ll. 4–8 (“Preferably, the electric motor and brake are operatively connected such that the brake and electric motor may be deenergized simultaneously so that the brake automatically locks the motor to prevent tarp rotation when the motor is switched off.”). This is improper, *Innova/Pure Water* teaches. The term will be given its full meaning.

Reinforcing this conclusion is dependent claim 5, which provides: “The direct-drive actuator assembly of claim 4, wherein the electric motor and brake are electrically connected for

³ Defendant's proposed initial definition, in contrast, does not offer too little description but too much. That proposed definition, as noted, was that “a brake operatively connected to the electric motor” means “[t]he brake is connected to the electric motor and, when activated, applies frictional force to stop rotational movement of the motor shaft.” This proposed definition imports limitations from the specification into the claim rather than giving the term its full meaning. This is improper, *Innova/Pure Water* teaches.

single-switch operation such that the brake and electric motor may be energized and deenergized simultaneously.” ‘819 patent, col 5, ll. 6–9.

As noted, under the doctrine of claim differentiation, the presumption is that the independent claim (claim 1) is not restricted by the added limitation in the dependent claim (claim 5). *Phillips*, 415 F.3d at 1315; *Acumed LLC*, 483 F.3d at 806.

iii

In sum, both parties definitions will be rejected. Instead, the phrase “a brake operatively connected to the electric motor” will be defined to mean “a brake arranged in a manner that is capable of braking the motor.”

6

The sixth disputed term comes from dependent claim 18, which provides in pertinent part: “the electric motor and the brake are disposed along a common axis.” ‘819 patent, col. 6, l. 32–33. These 12 disputed words give rise to at least two sub-disputes. Before those sub-disputes are taken up, however, the point of agreement should be noted. The parties agree that the phrase “a common axis” means the “same” axis. Now on to the disagreements.

a

The first disagreement is what “the brake” means. Defendant asserts that the phrase should be interpreted to include an “armature plate, friction disc, and hub.”

For reasons detailed above, the Court will decline to define the term “brake,” much less define it to be limited to a brake with an “armature plate, friction disc, and hub.” Briefly, the specification provides:

The preferred brake assembly for use with the present invention, as shown in FIGS. 6 and 7, is a spring-set disc brake, such as that available from Rexnord Corporation of Milwaukee, Wis. This brake is a spring-applied, power-released brake to facilitate automatic locking of the electrical motor. The motor shaft

includes an aperture formed therein. The motor shaft is inserted into the hub, and aperture is aligned with hub aperture, and a pin inserted therethrough for engaging the hub and motor shaft. As shown in FIG 7., the hub is hexagonally shaped. A friction disc is secured peripherally about the hexagonally shaped hub. A spring applies a braking force against the armature plate for squeezing the friction disc against the pressure plate.

Id. col. 3, ll. 54–67. While this is a preferred embodiment, nothing in the language of claim limits a brake to this type of embodiment. Claim 18 is a dependent claim, providing in full: “The direct-drive actuator assembly of claim 17, wherein the electric motor and brake are disposed along a common axis.” *Id.* col. 6, ll. 34–36. “Brake,” full stop. Not a brake with an “armature plate, friction disc, and hub.” Not a brake available from Rexnord Corporation of Milwaukee, Wisconsin. Just a brake.

Likewise, claim 17, which is expressly incorporated into dependent claim 17, refers simply to a “brake.” No more, no less. And this is precisely how the Court will interpret the term.

Reinforcing this conclusion is dependent claim 19, which limits claim 18 by providing: “The direct-drive actuator assembly of claim 18, wherein the brake is a spring-applied, power released type brake.” ‘819 patent, col. 6, ll. 34–36. Nothing in claim 18, however, limits the brake to this particular type of brake. In that claim, it’s just a brake. And that is how the Court will construe it.

b

The next disagreement is what the axis of the motor means in this context. Plaintiff asserts that it means simply that; Defendant asserts that it means something more precise — specifically, the axis of the electric motor is “the motor shaft.” Yet again, nothing in dependent claim 18 or independent claim 17 limits the motor’s common axis with the brake to the motor’s shaft.

Claim 17 provides that the brake is “operatively connected in a stacked relationship with the electric motor.” ‘819 patent, col. 6, ll. 26–27. Claim 18 imposes an additional limitation: “the electric motor and brake are disposed along a common axis.” *Id.* col. 6, ll. 32–33. This limitation does not, however, limit the claimed invention to one in which “the electric motor[’s shaft] and brake are disposed along a common axis.” And the Court will not read this limitation into claim 18.

Rather, the term “the electric motor and the brake are disposed along a common axis” will be defined to mean “the electric motor and brake have the same axis.” (“Common,” after all, has multiple common meanings. And “disposed along,” an ambiguous phrase, is best disposed of.)

7

The seventh disputed term is the phrase “transmission housing” in claims 1 and 17. ‘819 patent, col. 4, l. 53, col. 6, l. 21. The parties represent that they “agree that the transmission housing and cover are separate items.”

Plaintiff’s proposed definition of “transmission housing” is “[a] housing that contains the transmission gears.” Defendant initially proposed “[a]n assembly of gears, armature shaft, output shaft and cover, exclusive of the motor and brake.” In its brief, however, Defendant writes: “In an effort of compromise . . . [Defendant] drops its argument that ‘transmission housing’ includes the armature shaft.”

a

To understand why Defendant is correct that the definition of “transmission housing” includes the transmission gears and output shaft but excludes the motor and brake, reference

must be made to the claims’ “internal logic.” *Markman*, 517 U.S. at 389; see *id.* at 390 (instructing that a claim should be construed so as to “preserve the patent’s internal coherence”).

i

First, claim 1. As noted, claim interpretation begins “with the language of the claims. The general rule is, of course, that terms in the claim are to be given their ordinary and accustomed meaning.” *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999) (citations omitted) (collecting cases)); see also *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 759 (Fed. Cir. 1984) (“It is elementary that resort must be had in the first instance to the words of the claim which define the metes and bounds of the invention.”).

The body of claim 1 has three paragraphs. The first is “a transmission housing having an output shaft for directly driving the tarp spool, and further having transmission gears therein engaging the output shaft.” ‘819 patent, col. 4, l. 53–55. The second is “an electric motor operatively connected to the transmission gears for actuating the tarp spool.” *Id.* col. 4, ll. 56–57. And the third is “a brake operatively connected to the electric motor.” *Id.* col. 4, ll. 58–59.

The text of the claim thus provides that the transmission housing includes two structures “therein” — the transmission gears and output shaft. The electric motor, in contrast, is not expressly included “therein.” Rather, it is “operatively connected” to the transmission gears, which, in turn, are situated within the transmission housing.

Likewise, the brake is not expressly included within the transmission housing. Rather, it “operatively connected” to the motor, which is operatively connected to the transmission gears, which, in turn, are situated within the transmission housing.

The internal logic of claim 1 is inescapable. Hazarding the risk of stating the self-evident, the ordinary meaning of a “housing” that contains a pair of objects “therein” is that the

housing contains just that — two objects. Not four. Not forty. Not four thousand. Two. The transmission gears and output shaft.

The phrase “transmission housing” in claim 1 will therefore be defined as “a housing that includes the transmission gears and output shaft and excludes the electric motor and brake.”

ii

The phrase “transmission housing” in claim 17 will be given the same definition. To elaborate, the body of claim 17 contains four paragraphs. The first is “a transmission housing having an output shaft for directly driving the tarp spool, and a plurality of transmission gears.” ‘819 patent, col. 6, l. 21–23. The second is “an electric motor operatively connected to the transmission gears.” *Id.* col. 6, ll. 24–25. The third is “a brake operatively connected in a stacked relationship with the electric motor.” *Id.* col. 6, ll. 26–27. And the fourth is “a cover secured to the transmission housing for enclosing the electric motor and brake.”

Again, the plain language of this claim is that the transmission housing has two objects: transmission gears and an output shaft. It does not have a motor. It does not have a brake. To preserve the claim’s internal logic, it will be defined just so.

b

The phrase “transmission housing” in both claims 1 and 17 will be defined as “a housing that includes the transmission gears and output shaft and excludes the electric motor and brake.”

8

The eighth and final disputed term is the phrase “a cover . . . for enclosing the electric brake and motor” in claim 17. ‘819 patent, col. 6, ll. 29–30. Defendant’s proposed definition is “[a] cover that encloses the brake and the motor, but not the transmission gears.” Plaintiff’s initially proposed definition was “[a] housing that covers at least the brake and motor.” In light

of Defendant's suggestion, however, Plaintiff agrees to substitute the word "encloses" for "covers," making the proposal "[a] housing that encloses at least the brake and motor."

For this disputed term, like the preceding disputed term, the internal logic of the claim is the key to interpretation. As noted, the body of claim 17 contains four paragraphs. The first provides the transmission housing contains two objects: transmission gears and an output shaft. '819 patent, col. 6, l. 21–23. The second provides that the electric motor is "operatively connected" to the transmission gears. *Id.* col. 6, ll. 24–25. The third provides that the brake is "operatively connected" and "in a stacked relationship" with the motor. *Id.* col. 6, ll. 26–27. And the fourth provides that the cover is "secured to the transmission housing for enclosing the electric motor and brake." *Id.* col. 6, ll. 29–30.

The transmission housing, as noted, includes the transmission gears and output shaft and excludes the electric motor and brake. The cover, in turn, encloses the motor and brake — but not the transmission gears or output shaft.

The phrase "a cover . . . for enclosing the electric brake and motor" will be defined as "a housing that encloses the brake and motor and does not enclose the transmission gears or output shaft."

III

Accordingly, it is **ORDERED** that the parties' agreed definitions are **ADOPTED** and it is further **ORDERED** that:

- (1) "A direct-drive actuator assembly" means "[a]n assembly that drives a tarp spool without chains or belts."
- (2) An "output shaft for directly driving the tarp spool" means "[t]he transmission housing output shaft is connected to and rotates the tarp spool."

- (3) “[A]n electric motor operatively connected to the transmission gears for actuating the tarp spool” means “[a]n electric motor that transmits movement of the motor shaft through gears to the tarp spool to wind and unwind the tarp.”
- (4) “[A brake for] automatically braking the motor when the motor is turned off” means “[t]he brake is off when power is supplied to the motor, and the brake is on when power is not supplied to the motor.”
- (5) “[A] cover secured to the transmission housing by the plurality of bolts over the electric motor and brake” means “[t]he cover over the brake and motor is attached to the transmission housing by the same two or more bolts that attach the brake to the motor.” And
- (6) “[A brake] in a stacked relationship with the electric motor” means “[t]he brake and motor are adjacent to each other and the brake is aligned with the motor so that one end of the brake faces an end of the motor.”

It is further **ORDERED** that the following definitions are **ADOPTED** for the eight disputed terms:

- (1) The preamble phrase “for a truck bed tarp system” in claims 1 and 17 is not a limitation on those claims.
- (2) The phrase “tarp spool” in claims 1 and 17 means “a spindle or cylinder that rotates around its axis to wind and unwind tarp material.” (Defendant’s proposed limitation that the tarp spool is “mounted” and “stationary” is rejected.)
- (3) The dispute over the meaning of the preamble phrase “truck bed tarp system” in claims 1 and 17 is moot (as the phrase is not a limitation on those claims).
- (4) The phrase “a brake” in claims 1 and 17 does not require construction (as it is a non-technical term written in plain English).
- (5) The phrase “a brake operatively connected to the electric motor” in claim 1 (and the related phrase in claim 17) means “a brake arranged in a manner that is capable of braking the electric motor.”
- (6) The phrase “the electric motor and the brake are disposed along a common axis” in claim 18 means “the electric motor and brake have the same axis.”
- (7) The phrase “transmission housing” in claims 1 and 17 means “a housing including an output shaft and transmission gears and excluding the electric motor and brake.”

- (8) The phrase “a cover . . . for enclosing the electric brake and motor” means “a housing that encloses the brake and motor and does not enclose the transmission gears or output shaft.”

s/Thomas L. Ludington
THOMAS L. LUDINGTON
United States District Judge

Dated: July 22, 2013

PROOF OF SERVICE

The undersigned certifies that a copy of the foregoing order was served upon each attorney or party of record herein by electronic means or first class U.S. mail on July 22, 2013.

s/Tracy A. Jacobs
TRACY A. JACOBS